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Melody A. Wilk

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EXAMINER

SEIFU, LESSANEWORK T

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,046	Applicant(s) WILK ET AL.	
	Examiner Lessanework T. Seifu	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, pages 9 and 10, filed on February 27, 2008, with respect to the rejection(s) of claim(s) 1-17 and 19-24 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the amendment.

In response to applicants' argument to the importance of the claimed range of carbon atoms per phosphorous-containing moiety, the arguments have been fully considered but they are not persuasive. The obtained results are predictable from the teachings in the reference Bardasz et al. Bardasz et al. disclose a phosphorus-containing compound (B-I) which can have a structure similar to applicants' claimed invention (see parag. [0037] to [0039], and [0150]). Bardasz et al. disclose that the total number of carbon atoms in the phosphorus-containing compound must be sufficient to render the compound soluble in the base oil (see parag. [0039]). The reference further discloses an embodiment wherein the total number of carbon atoms in the phosphorus-containing compound is at least about 12 (see parag. [0039]). Bardasz et al. are however silent with respect to the average total number of carbon atoms per phosphorus-containing moiety in the phosphorus-containing compound represented by formula (F-1) (see parag. [0150]), which is most similar the claimed compound, being at least 10.4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the phosphorus-containing compounds

represented by the formula (F-I) in Bardasz et al. have a total number of carbon atoms per phosphorus-containing moiety comparable to phosphorus-containing compounds, such as compound represented by the formula (B-I) in Bardasz et al. For the purpose of rendering the compound soluble in the base oil (see parag. [0039]).

2. Applicant's arguments filed February 27, 2008 with respect to claim 18 have been fully considered but they are not persuasive.

Applicants state that the rejection of claim 18 is factually incorrect, because “[t]he example for the R¹ and R² groups at col. 15, lines 20-40 are quite specifically disclosed as relating to the compounds (C-I) and (C-II), disclosed at col. 15, lines 1-52, not to the compounds (C-III) disclosed from col. 15, line 53 to col. 16, line 37”. The Examiner respectfully disagrees. The rejection of the claim is based on the entire disclosure of Roby et al., not on a disclosure at a specific column and line in the reference. Applicants have admitted on record that compound (C-III), which has been cited by the examiner in the previous Office Action (see rejection of claim 18 in the Office Action dated 12/10/2007), has a structure similar to applicants claimed invention. It is this compound that has been cited by the examiner as relevant and applicable to the compound present in applicants’ claimed invention. At the cited section by the Applicants, col. 15, line 53 to col. 16, line 37, compound (C-III) can have compounds represented by the formula (II) as recited in claim 18, wherein R¹ and R² can both be 4-methyl-2-pentyl (see col. 16, lines 6-19). The examiner concedes to the error in citing the column and lines describing the groups that can be represented by R¹ and R² in compound (C-III).

However, this in no way makes the rejection of claim 18 factually incorrect. The reference Roby et al. does teach the claimed phosphorus-containing compound (see col. 15, line 53 to col. 16, line 19).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-16 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rejected because in the amended claims 1 and 24, "X²" previously presented in formula (I), has been replaced by "X¹". However, the amended claims 1 and 24 recite the presence of elements represented by X² which are independent of X¹. This renders the claims indefinite.

3. Claims 6, 7, 9, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 7, and 9 recite limitations wherein the R¹ and R² groups in formula (I) are aromatic groups or have about 6 to about 18 carbon atoms. The limitations in the above claims are inconsistent with the limitation in claim 1 which requires at least one of the R¹ and R² groups in formula (I) contains 4 or fewer carbon atoms.

Claim 17 recites the limitation "wherein at least one of the R¹ and R² groups in one or more of the phosphorus-containing compounds contains 4 or fewer carbon atoms and up to about 40 percent of all the R¹ and R² groups supplied by the phosphorus-containing metal salt contain 4 or fewer carbon atoms". The claim further recites the limitation "at least about 80% by weight of the phosphorus present in the lubricating oil composition being present in a compound represented by formula (II) wherein R¹ and R² are independently hydrocarbyl groups of about 6 to about 18 carbon atoms", which is inconsistent with the previous limitation which requires at least one of the R¹ and R² groups in the formula (II) contains 4 or fewer carbon atoms.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 3-17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bardasz et al. (US 2002/0151442).

Regarding claims 1, 4-5, and 20 Bardasz et al. disclose a lubricating oil composition comprising: a base oil (A), including base oil from mineral oil or poly-alpha-olefin (see parags. [0033]-[0034]); an alkali or alkaline earth metal-containing detergent (E); a metal salt of one or more phosphorus-containing compounds represented by the formula (F-I), which in one embodiment represents applicants' claimed compound represented by formula (I) (see parag. [0154]), wherein in formula (F-I), X^1 and X^2 are O, and R^1 and R^2 are independently hydrocarbyl groups, wherein at least one of the R^1 and R^2 groups in one or more of the phosphorus-containing compounds contains 4 or fewer carbon atoms and about 40 mole percent of all the R^1 and R^2 groups supplied by the phosphorus-containing metal salt contain 4 or fewer carbon atoms (see examples in paragraph [0154]); and an acylated nitrogen containing compound having at least about 10 aliphatic carbon atoms and a TBN of at least 1 (see parag. [0045] and Examples 1

and 2); the lubricating oil composition being characterized by a phosphorus concentration of up to about 0.12% by weight (see parag. [0150] and Examples 1 and 2). Regarding the claimed limitation to the substantial absence of copper, since Bardasz et al. do not disclose copper being present in their final lubricating oil composition, it can be construed that copper is substantially absent from their lubricating oil composition.

Regarding the limitation with respect to the total number of carbon atoms per phosphorus-containing moiety being at least 10.4, Bardasz et al. disclose a phosphorus-containing compound (B-I) which can have a structure similar to applicants' claimed invention (see parag. [0037] to [0039]). Bardasz et al. disclose that the total number of carbon atoms in the phosphorus-containing compound must be sufficient to render the compound soluble in the base oil (see parag. [0039]). The reference further discloses an embodiment wherein the total number of carbon atoms in the phosphorus-containing compound is at least about 12 (see parag. [0039]). Bardasz et al. are however silent with respect to the average total number of carbon atoms per phosphorus-containing moiety in the phosphorus-containing compound represented by formula (F-1) being at least 10.4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the phosphorus-containing compounds represented by the formula (F-I) in Bardasz et al. have a total number of carbon atoms per phosphorus-containing moiety comparable to phosphorus-containing compounds, such as compound represented by the formula (B-I) in Bardasz

et al. For the purpose of rendering the compound soluble in the base oil (see parag. [0039]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a lubricating oil composition provided according to the teachings of Bardasz et al. for the purpose of lubricating an internal combustion as claimed, because Bardasz et al. teach that the lubricating oil compositions selected according to their invention reduces sulfur levels, exhibit antiwear properties, and are especially suitable for use as engine lubricating oil compositions (see parag. [0025]).

Regarding claim 3, Bardasz et al. disclose an embodiment wherein the lubricating oil composition has a viscosity of about 6 to about 13 cSt at 100°C (see parag. [0019]).

Regarding claims 6 and 7, Bardasz et al. disclose that the phosphorus-containing compounds represented by the formula (F-I), can have a structure as recited in claims 6 and 7 (see parags. [0152] and [0153]).

Regarding claim 8, Bardasz et al. disclose that the metal used in the metal salt of the phosphorus containing compound includes zinc (see parag. [0156]).

Regarding claim 9, wherein at least 80% by weight, which reads on 100% of the phosphorus present in the lubrication oil composition being present in a compound represented by formula (I) wherein R¹ and R² are independently 6 to about 18 carbon atoms, Bardasz et al. disclose that the phosphorus present in the lubrication oil composition of their invention can be present in a compound as represented in applicants' formula (I) (see examples provided in paragraphs [0039] and [0153]).

Regarding claim 10, Bardasz et al. disclose that the alkali or alkaline earth metal-containing detergent can be a salt of an organic sulfur acid, carboxylic acid, lactone, phenol (D), or hydrocarbyl substituted saligenin (see parags. [0115] to [0118] and claim 3).

Regarding claim 11, Bardasz et al. disclose that the alkali or alkaline earth metal-containing detergent can be a salt of a linear oligomer or polymer containing unsubstituted or substituted phenol units and unsubstituted or substituted salicylic units (see parags. [0115] to [0118] and claim 15).

Regarding claim 12, Bardasz et al. disclose that the alkali or alkaline earth metal can sodium, lithium or calcium (see parag. [0114]).

Regarding claim 13, Bardasz et al. disclose that the acylated nitrogen-containing compound can be derived from a carboxylic acylating agent and at least one amino compound containing at least one --NH-- group, the acylating agent being linked to the amino compound through an imido, amido, amidine or salt linkage (see parag. [0046] and claim 9).

Regarding claim 14 Bardasz et al. disclose that the acylated nitrogen containing compound can be a polyisobutene substituted succinimide (see Examples 1 and 2, and claim 20).

Regarding claim 15, Bardasz et al. disclose that the lubricating oil composition can further comprise a dispersant, corrosion-inhibiting agent, antioxidant, viscosity modifier, dispersant viscosity index modifier, pour point depressant, friction modifier,

anti-wear agent, extreme pressure agent, fluidity modifier, copper passivator, anti-foam agent (see parag. [0175]).

Regarding claim 16, Bardasz et al. disclose magnesium as one of several preferred alternatives that can be used as the alkali or alkaline earth metal in their disclosed lubricating oil composition. Bardasz et al. however do not disclose magnesium being an essential component in their disclosure except as being one of several alternatives that are especially useful as the alkali or alkaline earth metal (see parag. [00114]). Accordingly, it can be construed that Bardasz et al.'s disclosure includes lubricating oil compositions wherein magnesium is substantially absent.

Regarding claims 19 and 21-23, the limitations recited in the claims regarding the R¹ and R² groups supplied by the phosphorus-containing metal salt, are obvious variations of the examples disclosed in Bardasz et al. at paragraphs [0153] and [0154].

Regarding claim 17, Bardasz et al. disclose a lubricating oil composition comprising: a base oil (A), including base oil from mineral oil or poly-alpha-olefin (see parags. [0033] - [0034]); an alkali or alkaline earth metal-containing detergent (E), the alkali or alkaline earth metal being sodium, lithium or calcium (see parag. [0114]); a metal salt, including zinc salt (see Parag. [0156]), of one or more phosphorus-containing compounds represented by the formula (F-I), which in one embodiment represents applicants' claimed compound represented by formula (II) (see parags. [0152] and [0154]), wherein in formula (F-I), X¹ and X² are O, X³ and X⁴ are S, and R¹ and R² are independently hydrocarbyl groups, wherein at least one of the R¹ and R² groups in one

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or more of the phosphorus-containing compounds contains 4 or fewer carbon atoms and about 40 mole percent of all the R¹ and R² groups supplied by the phosphorus-containing metal salt contain 4 or fewer carbon atoms (see examples in paragraph [0154]); and a polyisobutene substituted succinimide having a TBN of 27 (see Examples 1 and 2) the polyisobutene substituents having a number average molecular weight in the range of 700 to 3000 (see Examples 1 and 2); the lubricating oil composition being characterized by a phosphorus concentration of no more than about 0.12% by weight (see Examples 1 and 2). With respect to the limitation wherein at least 80% by weight, which reads on 100% of the phosphorus present in the lubrication oil composition being present in a compound represented by formula (II) wherein R¹ and R² are independently 6 to about 18 carbon atoms, Bardasz et al. disclose that the phosphorus present in the lubrication oil composition of their invention can be present in a compound as represented in applicants' formula (II) (see examples provided in paragraphs [0039] and [0153]). Regarding the claimed limitation to the substantial absence of copper, since Bardasz et al. do not disclose copper being present in their final lubricating oil composition, it can be construed that copper is substantially absent from their lubricating oil composition.

Regarding the limitation with respect to the total number of carbon atoms per phosphorus-containing moiety being at least 10.4, Bardasz et al. disclose a phosphorus-containing compound (B-I) which can have a structure similar to applicants' claimed invention (see parag. [0037] to [0039]). Bardasz et al. disclose that the total number of carbon atoms in the phosphorus-containing compound must be sufficient to

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render the compound soluble in the base oil (see parag. [0039]). The reference further discloses an embodiment wherein the total number of carbon atoms in the phosphorus-containing compound is at least about 12 (see parag. [0039]). Bardasz et al. are however silent with respect to the average total number of carbon atoms per phosphorus-containing moiety in the phosphorus-containing compound represented by formula (F-1) being at least 10.4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the phosphorus-containing compounds represented by the formula (F-I) in Bardasz et al. have a total number of carbon atoms per phosphorus-containing moiety comparable to phosphorus-containing compounds, such as compound represented by the formula (B-I) in Bardasz et al. For the purpose of rendering the compound soluble in the base oil (see parag. [0039]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a lubricating oil composition provided according to the teachings of Bardasz et al. for the purpose of lubricating an internal combustion as claimed, because Bardasz et al. teach that the lubricating oil compositions selected according to their invention reduces sulfur levels, exhibit antiwear properties, and are especially suitable for use as engine lubricating oil compositions (see parag. [0025]).

Regarding claim 24, Bardasz et al. disclose a lubricating oil composition comprising: a base oil (A) (see parags. [0033]-[0034]); an alkali or alkaline earth metal-containing detergent (E); a metal salt of one or more phosphorus-containing compounds

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represented by the formula (F-I), which in one embodiment represents applicants' claimed compound represented by formula (I) (see parag. [0154]), wherein in formula (F-I), X^1 and X^2 are O, and R^1 and R^2 are independently hydrocarbyl groups, wherein at least one of the R^1 and R^2 groups in one or more of the phosphorus-containing compounds contains 4 or fewer carbon atoms and about 40 mole percent of all the R^1 and R^2 groups supplied by the phosphorus-containing metal salt contain 4 or fewer carbon atoms and at least 60 mole percent of all the R^1 and R^2 groups supplied by the phosphorus-containing metal salts can be derived from secondary alcohols (see examples in paragraph [0154]); and an acylated nitrogen containing compound having at least about 10 aliphatic carbon atoms and a TBN of at least 1 (see parag. [0045] and Examples 1 and 2); the lubricating oil composition being characterized by a phosphorus concentration of up to about 0.12% by weight (see Examples 1 and 2). Regarding the claimed limitation to the substantial absence of copper, since Bardasz et al. do not disclose copper being present in their final lubricating oil composition, it can be construed that copper is substantially absent from their lubricating oil composition. Regarding the limitation with respect to the total number of carbon atoms per phosphorus-containing moiety being at least 10.4, Bardasz et al. disclose a phosphorus-containing compound (B-I) which can have a structure similar to applicants' claimed invention (see parag. [0037] to [0039]). Bardasz et al. disclose that the total number of carbon atoms in the phosphorus-containing compound must be sufficient to render the compound soluble in the base oil (see parag. [0039]). The reference further discloses an embodiment wherein the total number of carbon atoms in the phosphorus-

containing compound is at least about 12 (see parag. [0039]). Bardasz et al. are however silent with respect to the average total number of carbon atoms per phosphorus-containing moiety in the phosphorus-containing compound represented by formula (F-1) being at least 10.4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the phosphorus-containing compounds represented by the formula (F-I) in Bardasz et al. have a total number of carbon atoms per phosphorus-containing moiety comparable to phosphorus-containing compounds, such as compound represented by the formula (B-I) in Bardasz et al. For the purpose of rendering the compound soluble in the base oil (see parag. [0039]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a lubricating oil composition provided according to the teachings of Bardasz et al. for the purpose of lubricating an internal combustion as claimed, because Bardasz et al. teach that the lubricating oil compositions selected according to their invention reduces sulfur levels, exhibit antiwear properties, and are especially suitable for use as engine lubricating oil compositions (see parag. [0025]).

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bardasz et al. (US 2002/0151442) as applied to claim 1 above, and further in view of Chamberlin et al. (Balancing Crankcase Lubricant Performance with Catalyst Life, SAE, Technical Paper Series 841407, October 8-11, 1984).

Regarding claim 2, as shown in claim 1 rejection above, Bardasz et al. meet all of the limitations of claim 1. Bardasz et al. however do not explicitly disclose a weight ratio of detergent metal to phosphorus in the lubrication oil composition. The reference Chamberlin et al. discloses that it is a known practice in the art to select a detergent metal/phosphorus atomic weight ratio of 2.3 or higher to minimize the effects of phosphorus in exhaust emission catalysts (see pg. 9, under the heading, Detergent metal/Phosphorus Ratios). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected a weight ratio in the range disclosed in Chamberlin et al. for the purpose of minimizing the effect of phosphorus on emissions systems.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roby et al. (US 5,726,132).

Regarding claim 18, Roby et al. disclose a method of lubricating an internal combustion engine, the method comprising: (A) selecting a lubricating oil composition comprising: a base oil, including natural and synthetic lubricating oils (see col. 34, lines 26-30); an alkali or alkaline earth metal-containing detergent, the alkali or alkaline earth metal including sodium, lithium or calcium (see col. 26, lines 1-4); a metal salt of one or more phosphorus-containing compounds represented by the formula as recited in claim 18 (see col. 15, line 53 to col. 16, line 23), wherein the metal used in the metal salt include zinc (see col. 18, lines 18-35), wherein R^1 and R^2 in the formula are 4-methyl-2-pentyl (see col. 15, line 53 to col. 16, line 19).

Roby et al. further disclose the lubricating oil composition comprising: an acylated nitrogen containing compound, including polyisobutene substituted succinimide (see col. 8, lines 45-59, and claim 15), having at least about 10 aliphatic carbon atoms and a total base number which falls within applicants' claimed range (see col. 7, lines 40-50 and, the last line of Example B-3). Roby et al further disclose polyisobutene substituted succinimide which falls in the range of applicant claimed molecular weight range (see col. 8, lines 2-14, and claim 15). Roby et al. further disclose the lubricating oil composition being characterized by a phosphorus concentration of up to about 0.12% by weight, in one embodiment up to about 0.08% by weight (see col. 36, lines 48-50). Regarding the claimed limitation to the substantial absence of copper, since Roby et al. do not disclose copper being present in their final lubricating oil composition, it can be construed that copper is substantially absent from their lubricating oil composition.

(B) Adding the lubricating oil composition to the engine (see claim 43).

(C) Operating the engine (see claim 43).

With respect to applicants' limitation to the process step of (D), since, as shown above, Roby et al. have disclosed a lubricating oil blend within the scope of applicant claimed lubricating oil composition, a lubricating oil composition blended according to the teachings of Roby et al. would possess characteristics, comparable to applicants claimed invention. This is to say that an engine lubricated with a lubricating oil composition blended according to the teaching of Roby et al, would be capable of generating a lean-phosphorus containing gas.

With respect to applicants' claimed limitation to the process step of (E), the limitation is not a patentable distinction over the prior art, as it is well known in the art to equip an internal combustion engine with an emissions control system equipped with a catalyst containing exhaust gas after treatment device, such that the catalyst is contacted with the exhaust gas generated when operating the engine.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lessanetwork T. Seifu whose telephone number is (571)270-3153. The examiner can normally be reached on Mon-Thr 7:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797